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EXAMINER

CHURNET, DARGAYE H

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/662,583	Applicant(s) BHARDWAJ, SANJAY	
	Examiner DARGAYE H. CHURNET	Art Unit 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13-20 and 22 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

For claim 13, applicant claims "one of said pipeline stages coupled to another of said pipeline stages for combining, in said another pipeline stage, part of a data segment currently held in said one pipeline stage with a data segment currently held in said another pipeline stage". However, there is no mention of combining data segments anywhere in the disclosure; all that is mentioned is forwarding data segments to parallel stages, but no combination. Therefore, the claim is not enabling. Claims 14-16 are rejected as being dependent on rejected claims.

For claim 17, lines 6-9, applicant claims "insuring that said information is available in said sequence of parallel data segments, including combining a first of said parallel data segments". However, there is no mention of combining parallel data segments anywhere in the disclosure. Therefore, the claim is not enabling. Claim 22 is rejected for similar reasons. Claims 18-20 are rejected as being dependent on a rejected claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7, 21, and 23 are rejected under 35 U.S.C 102(e) as being anticipated by Lee et al. (cited 2003/0152076) hereinafter referred to as Lee.

For claim 1, Lee discloses an apparatus for processing an encapsulation packet including an encapsulating header and an encapsulated packet, comprising: a data pipeline having an input for receiving the encapsulation packet formatted as a sequence of parallel data segments (see paragraph [0076], lines 6-11, wherein the parallel data segments of the incoming packet are inputted to a data pipeline), said data pipeline including a plurality of pipeline stages (see paragraph [0078], lines 1-2, wherein the pipeline comprises a plurality of pipeline stages), each said pipeline stage for holding therein successive ones of said data segments (see paragraph [0078], lines 2-4, wherein the data segments are stored in the pipeline stages); a modifier (see paragraph [0188], lines 1-2, protocol translator unit 315) coupled to said data pipeline for modifying said encapsulating header in response to first information contained in said encapsulated packet (see paragraph [0188], lines 1-5, wherein the modifying is stripping

Art Unit: 2619

header information and the POPOFF field is the first information giving a starting point to begin stripping header bytes); and selection logic (see fig. 13, displaying the selection logic between pipeline stages) coupled between said data pipeline and said modifier, said selection logic having an input for receiving selectively programmable second information indicative of a location of said first information within said encapsulated packet (see paragraph [0188], lines 5-7, wherein the second information is the number of bytes to be removed), said selection logic responsive to said second information for routing said first information from said data pipeline to said modifier (see fig. 11, displaying the packet between pipeline stages routed after the packet header is stripped based on the POPOFF field). Claims 21 and 23 are rejected for similar reasons.

For claim 2, Lee discloses said modifier is for removing header information from said encapsulating header (see paragraph [0188], lines 1-5, wherein the modifying is stripping header information).

For claim 3, Lee discloses said modifier is for replacing said removed header information with said first-mentioned information (see paragraph [0188], lines 1-5, wherein the modifying is stripping header information based on the offset which provides the starting point for removing bytes).

For claim 4, Lee discloses said selection logic (see fig. 13, displaying the protocol translator unit within the execution stage of the pipeline, the protocol translator unit

Art Unit: 2619

performing the packet header modification) includes a selector (see fig. 13, Mixer 446) having an input coupled to said pipeline and having an output, and a shifter (see fig. 13, Rotator 440) having an input coupled to said selector output and having an output coupled to said modifier (see fig. 13, Mixer 438 and paragraph [0193], describing the path to the Mixer 436 which performs the header stripping).

For claim 5, Lee discloses said modifier includes a selector (see fig. 13, Mixer 438) having an input coupled to said pipeline (see fig. 13, path from Encapsulation Data 456 to the Mixer 438) and to said out of said shifter (see fig. 13, path from Rotator 440 to Mixer 438).

For claim 7, Lee discloses said first information includes address information (see paragraph [0194], lines 4-9, wherein the strip offset field includes address information).

Claim Rejections - 35 USC § 103

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of the admitted prior art.

For claim 6, Lee fails to disclose said encapsulation packet is an OSI layer 2 packet, said encapsulating header is an OSI layer 2 header and said encapsulated packet is an OSI layer 3 packet. The admitted prior art from the same or similar fields of endeavor teach said encapsulation packet is an OSI layer 2 packet, said encapsulating header is an OSI layer 2 header and said encapsulated packet is an OSI layer 3 packet (see paragraph [0003], lines 3-6, wherein the encapsulation packet is OSI layer 2 with a layer 2 encapsulating header and layer 3 encapsulated packet). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to incorporate the elements above stated by the admitted prior art in the network of Lee. The method taught by the admitted prior art is modified/implemented into the network of Lee by using the OSI hierarchical model for the encapsulation packets. The motivation for combining the inventions is that Lee deals with pipelining encapsulation packets as described in the admitted prior art.

Art Unit: 2619

5. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Dorsey et al. (cited 2001/0033580).

For claim 8, Lee discloses an apparatus for processing an encapsulation packet including an encapsulating header and an encapsulated packet, comprising: a data pipeline having an input for receiving the encapsulation packet formatted as a sequence of parallel data segments (see paragraph [0076], lines 6-11, wherein the parallel data segments of the incoming packet are inputted to a data pipeline), said data pipeline including a plurality of pipeline stages (see paragraph [0078], lines 1-2, wherein the pipeline comprises a plurality of pipeline stages), each said pipeline stage for holding therein successive ones of said data segments (see paragraph [0078], lines 2-4, wherein the data segments are stored in the pipeline stages); a modifier (see paragraph [0188], lines 1-2, protocol translator unit 315) coupled to said data pipeline for modifying said encapsulating header in response to first information contained in said encapsulated packet (see paragraph [0188], lines 1-5, wherein the modifying is stripping header information and the POPOFF field is the first information giving a starting point to begin stripping header bytes); and selection logic (see fig. 13, displaying the selection logic between pipeline stages) coupled between said data pipeline and said modifier, for routing said first information from said data pipeline to said modifier (see fig. 11, displaying the packet between pipeline stages routed after the packet header is stripped based on the POPOFF field).

Lee fails to disclose at least one of said pipeline stages having a data width that is greater than said common data segment width for holding therein a portion of the

Art Unit: 2619

encapsulation packet that is larger than said data segments. Dorsey from the same or similar fields of endeavor teach at least one of said pipeline stages having a data width that is greater than said common data segment width for holding therein a portion of the encapsulation packet that is larger than said data segments (see paragraph 122, wherein the pipeline has variable widths). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to incorporate the elements above stated by Dorsey in the network of Lee. The method taught by Dorsey is modified/implemented into the network of Lee by setting different widths for the pipeline. The motivation for at least one of said pipeline stages having a data width that is greater than said common data segment width for holding therein a portion of the encapsulation packet that is larger than said data segments is to store data segments of various lengths.

For claim 9, Lee discloses said portion of the encapsulation packet includes one of said data segments and part of another of said data segments (see paragraph 77, wherein a group of segments are combined to create a single segment).

For claim 10, Lee discloses said part of said another data segment includes a portion of said information (see paragraph 78, wherein each data segment contains information).

For claim 11, Lee discloses said one and another data segments are adjacent to one another in said sequence (see paragraph 77, wherein the data segments are parallel).

For claim 12, Lee discloses said another data segment follows said one data segment in said sequence (see paragraph 77, wherein the parallel sequence of data segments includes one segment following another segment).

Response to Arguments

5. Applicant's arguments filed with respect to claims 1, 13, and 17 have been fully considered but they are not persuasive. For claim 13, applicant argues on page 8 of the Remarks that there is support for “insuring that said information is available in said sequence of parallel data segments, including combining a first of said parallel data segments and part of a second of said parallel data segments at a temporal position in said sequence occupied by said first parallel data segment” in the disclosure by supplying a definition of the word “combine”. However, nowhere in the specification is this combination supported, and applicant was not able to specify where the combination could be interpreted in the specification. Claims 17 and 22 were rejected similarly, and the rejections also stand.

For claim 1, applicant argues on page 9 of the Remarks that the POPOFF field of Lee is located within the PCI; therefore the modifying is not in response to information contained within the packet. Examiner respectfully disagrees with the Applicant's

Art Unit: 2619

interpretation. Although the POPOFF field is located in the PCI, the PCI is identified in the pipeline stages by the flow ID contained within the packet, as described in greater detail in paragraph 110. The PCI is located in response to the flow ID within the packet and is used to provide the POPOFF field for modifying the header, thereby reading on “modifying said encapsulating header in response to first information contained in said encapsulated packet”.

6. Applicant's amendment to claim 8 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2619

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dargaye H. Churnet whose telephone number is 571-270-1417. The examiner can normally be reached on Monday-Friday from 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dargaye Churnet
Patent Examiner
Art Unit 2419

/Chirag G Shah/

Supervisory Patent Examiner, Art Unit 2419